

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Amend independent claims 1, 14, and 21.
2. Amend independent claims 8, 9, and 17.
3. Respectfully traverse all prior art rejections.
4. Request an interview.

B. THE PRIOR ART REJECTIONS

Claims 1-3, 4-7, 8, 10-12 and 14-16 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Publication 2002/0172208 to Malkamaki et al in view of U.S. 2002/0054578 to Zhang et al and further in view of U.S. Publication 2002/0048268 to Menon et al. Claims 9, 13 and 17-20 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Publication 2002/0054578 to Zhang et al in view of U.S. Publication 2002/0048268 to Menon et al. Claim 21 stands rejected under 35 USC 103(a) as being unpatentable over U.S. Publication 2002/0172208 to Malkamaki et al in view of U.S. 2002/0054578 to Zhang et al and further in view of U.S. Publication 2002/0048268 to Menon et al and further in view of the Qingguo reference. All prior art rejections are respectfully traversed for at least the following reasons.

C. SELECTED COMMENTS REGARDING THE DISCLOSURE

The technology of Applicants' specification addresses a problem of ensuring a steady flow of data across a radio link in which data packets are transmitted over two cascaded radio links between user terminals. Jitter introduced at a sending side of the pair of cascaded links will give rise not only to jitter at the receiving side, but also to a

potential premature draining of the receiving side buffer. Applicants address these and other problems by disabling an in-sequence delivery option of packets.

As previously explained, claims 8 to 12 address a problem caused by the Transmission Control Protocol (TCP) which uses a slow start mechanism. TCP defines a window which restricts the number of unacknowledged IP packets which can be in transit at any given time. The window size is increased as acknowledgements are received, and is decreased if no acknowledgements are received for some specified period. The rate at which the window is increased depends on the ACKs received and sent from the receiver. If the ACKs are delayed, the slow start period is prolonged. During slow start, TCP cannot fully utilize a given radio link which means that transfer times for multi-media content such as pictures increases.

In the example where a combinational multi-media session involving circuit switched (CS) and packet switched (PS) sessions involves sending pictures which are relatively small in size, say between 3 and 50k B, the TCP will mostly be operating in the slow start phase for the period that it takes to send the picture, thereby increasing the time it takes to transmit a picture. The technology of claim 8 addresses this problem by setting a TCP sending parameter (i.e., window size) at the sending user terminal for the packet switched session so as to optimize radio resource usage, e.g., to be larger than that of a multimedia object to be sent. The TCP parameter is different from parameters used for non-combinational multi-media session related packet traffic. In other words, one window size is used when combinational multi-media packets traffic is sent, and another window size is used for non-combinational multi-media session related packet traffic.

D. THE CLAIM AMENDMENTS

Independent claims 1, 14 and 21 have been amended to specify, e.g., that the method includes receiving packets from a first of said user terminals, while disabling an in-sequence delivery option for onward delivery of the received packets to the radio

network control nodes of the radio access network(s) serving other of said user terminals for said packet switched session. The amendatory language is supported, e.g., by page 6, lines 7 *et seq* and original claim 4.

Independent claims 8, 9, and 17 have been amended to specify, e.g., that the method includes setting a Transport Control Protocol (TCP) sending window size at at least one user terminal for said packet switched session so as to be larger than that of a multimedia object to be sent, the TCP window size being different from the parameter(s) used for non-combinational multimedia session related packet traffic. The amendatory language is supported, e.g., by page 7, circa line 29; page 7, lines 15 *et seq*; page 4, lines 20 *et seq* and 30 *et seq*.

E. PATENTABILITY OF THE CLAIMS

The office action opines that paragraph [0014] of Malkamaki teaches using different parameters for optimising radio resource usage (e.g. in order to control the re-sequencing buffer sizes, some transit and receive windows should be specified). The office action considers that Zhang teaches combinational multi-media sessions, and so considers that a combination of Zhang, Malkamaki and Menon would lead to the claimed subject matter.

Applicants disagree for reasons including those already of record. Applicants reiterate that there is no motivation for the skilled person (when looking to solve a problem caused by sending small pictures in a combinational multi-media session using a TOP slow start mechanism) to make such a complex combination of three documents.

Moreover, with respect to independent claims 8, 9, and 17, Applicants submit that one of the three applied references, either alone or in combination, teach or suggest limitations such as a window size being set larger than or equal to the picture size being transmitted.

Independent claims 1, 14, and 21 have been amended to be essentially commensurate with the corresponding European claim. In conjunction with independent claims 1, 14, and 21, Applicants again stress that Mahkamaki only makes a casual reference to out-of-sequence delivery, and is not concerned with reducing jitter caused by delaying the sending of packets from the sending side. As described in paragraph [0016] of Malkamaki, the problem addressed is that of guaranteeing in-sequence delivery of packets to the RLC layer by the MAC-hs layer.

F. REQUEST FOR INTERVIEW

Applicants respectfully request that the examiner contact the undersigned in order to arrange an interview prior to mailing of any further office action including a prior art rejection.

G. MISCELLANEOUS

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly requested. The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application. The Examiner is encouraged to contact the undersigned to arrange for an interview.

Respectfully submitted,

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